

Internal Application No  
PL 11/1B2005/050202

According to International Patent Classification (IPC) or to both national classification and IPC

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04L H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal. WPI Data

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 2002/031100 A1 (SASHIHARA TOSHIYUKI)  14 March 2002 (2002-03-14)  paragraph '0001!  paragraphs '0013! - '0061!  paragraphs '0078! - '0089!  paragraphs '0098! - '0136!  claim 1  figures 4-9</p> <p style="text-align: center;">-----  -/--</p>	1-9

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

<sup>a</sup>A document defining the general state of the art which is not considered to be of particular relevance

\*E earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*& document member of the same patent family

Date of the actual completion of the international search

13 June 2005

Date of mailing of the International search report

21/06/2005

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
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Authorized officer \_\_\_\_\_

Pérez, M

## INTERNATIONAL SEARCH REPORT

In  
national Application No  
PCT/IB2005/050202

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CHENXI ZHU ET AL: "A five-phase reservation protocol (FPRP) for mobile ad hoc networks" INFOCOM '98. SEVENTEENTH ANNUAL JOINT CONFERENCE OF THE IEEE COMPUTER AND COMMUNICATIONS SOCIETIES. PROCEEDINGS. IEEE SAN FRANCISCO, CA, USA 29 MARCH-2 APRIL 1998, NEW YORK, NY, USA, IEEE, US, vol. 1, 29 March 1998 (1998-03-29), pages 322-331, XP010270275 ISBN: 0-7803-4383-2 the whole document	1-9
A	US 2003/142658 A1 (OFUJI YOSHIKI ET AL) 31 July 2003 (2003-07-31) paragraph '0003! paragraphs '0014! - '0016! paragraph '0034! paragraph '0054! paragraphs '0063! - '0084! paragraph '0181! figures 7,13	1-9
A	US 4 688 213 A (RAYCHAUDHURI ET AL) 18 August 1987 (1987-08-18) column 1, lines 6-10 column 3, lines 13-44 column 6, lines 25-51 column 13, lines 47-59 column 15, lines 59-63 column 21, lines 45-56 claims 7-10 figures 11,15,17	1-9

## INTERNATIONAL SEARCH REPORT

Inter. Application No  
PCT/JP2005/050202

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002031100	A1	14-03-2002	JP 3405322 B2	12-05-2003
			JP 2001358642 A	26-12-2001
US 2003142658	A1	31-07-2003	JP 2003229894 A	15-08-2003
			AU 2003200325 A1	21-08-2003
			CA 2417453 A1	31-07-2003
			CN 1436014 A	13-08-2003
			DE 60300426 D1	04-05-2005
			EP 1335621 A1	13-08-2003
US 4688213	A	18-08-1987	NONE	

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>PHDE040031WO</b>	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. <b>PCT/IB2005/050202</b>	International filing date ( <i>day/month/year</i> ) <b>18 January 2005 (18.01.2005)</b>	Priority date ( <i>day/month/year</i> ) <b>29 January 2004 (29.01.2004)</b>
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant <b>PHILIPS INTELLECTUAL PROPERTY &amp; STANDARDS GMBH</b>		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 7 sheets, including this cover sheet.  
  
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
3. This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/> Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Date of issuance of this report <b>31 July 2006 (31.07.2006)</b>  Authorized officer  <div style="text-align: right; font-weight: bold;">Cecile Chatel</div>  e-mail: pt13@wipo.int
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# PATENT COOPERATION TREATY

REC'D 17 JUN 2005

WIPO

PCT

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

11/8 -

PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/IB2005/050202

International filing date (day/month/year)  
18.01.2005

Priority date (day/month/year)  
29.01.2004

International Patent Classification (IPC) or both national classification and IPC  
H04L12/56

Applicant  
PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1 (a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
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Telephone No. +31 70 340-4178



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050202

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050202

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: US2002031100

D2: US2003142658

D3: US4688213

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-9 does not involve an inventive step in the sense of Article 33(3) PCT.

2.1. The document D1 discloses (the references in parentheses applying to this document):

A method of synchronizing message transmissions (paragraphs 1 and 13) between mobile nodes in an ad-hoc network using a medium access protocol (paragraphs 31-32, 66 and 78; the use of a medium access protocol is an implicit feature when an ad-hoc network protocol is being used) wherein a message is sent by a node only when it ascertains that no message is being sent by any other node (paragraph 89), and a node which receives two colliding message, reports this to the sending nodes (paragraph 29 and 123).

The subject-matter of claim 1 therefore differs from this known D1 in that in claim 1 it is stated that the messages are compared with one another with regard to their length and transmission rate.

The feature of comparing the messages/packets transmitted with regard to some of their characteristics as their length and transmission rate is a normal feature in the field of mobile communication networks (see for example, document D2 paragraph 54, 63 and 84 and D3, column 13, lines 47-59 and column 15, lines 59-63). The skilled person would therefore regard it as a normal option to include this feature in the method described in



document D1.

Consequently, **the subject-matter of claim 1 does not involve an inventive step (Article 33 (3) PCT).**

2.2. Dependent claims 2-9 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step. The reasons being as follows:

**claims 2 and 7:** see D1, paragraphs 81 and 123.

**claims 3-6, 8 :** These features are merely straightforward possibilities, known in the field of mobile communication networks, from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill.

**Claim 9:** It only adds to the previous method claims, a particular use of the method. This use of the method does not add any technical restriction to claim 9, so claim 9 has the same technical features of the claims on which it depends. Consequently, for the same reason stated in the above paragraphs, claim 7 does not meet the requirements of the PCT.

#### **Re Item VIII**

#### **Certain observations on the international application**

3. Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined, because the expression "**the messages are compared with one another with regard to their length and transmission rate**" used in claim 1 is vague and leaves the reader in doubt as to the meaning of the technical features to which it refers (it is not clear how the comparison is made and which messages are compared).

Furthermore, it is not clear which technical effects this method step has and which is its relation with the other steps of claim 1, thereby rendering the definition of the subject-matter of said claim unclear (**Article 6 PCT**).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050202



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050202

---

**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050202

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

---

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: US2002031100

D2: US2003142658

D3: US4688213

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-9 does not involve an inventive step in the sense of Article 33(3) PCT.

2.1. The document D1 discloses (the references in parentheses applying to this document):

A method of synchronizing message transmissions (paragraphs 1 and 13) between mobile nodes in an ad-hoc network using a medium access protocol (paragraphs 31-32, 66 and 78; the use of a medium access protocol is an implicit feature when an ad-hoc network protocol is being used) wherein a message is sent by a node only when it ascertains that no message is being sent by any other node (paragraph 89), and a node which receives two colliding message, reports this to the sending nodes (paragraph 29 and 123).

The subject-matter of claim 1 therefore differs from this known D1 in that in claim 1 it is stated that the messages are compared with one another with regard to their length and transmission rate.

The feature of comparing the messages/packets transmitted with regard to some of their characteristics as their length and transmission rate is a normal feature in the field of mobile communication networks (see for example, document D2 paragraph 54, 63 and 84 and D3, column 13, lines 47-59 and column 15, lines 59-63). The skilled person would therefore regard it as a normal option to include this feature in the method described in

document D1.

Consequently, **the subject-matter of claim 1 does not involve an inventive step (Article 33 (3) PCT).**

2.2. Dependent claims 2-9 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step. The reasons being as follows:

**claims 2 and 7:** see D1, paragraphs 81 and 123.

**claims 3-6, 8 :** These features are merely straightforward possibilities, known in the field of mobile communication networks, from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill.

**Claim 9:** It only adds to the previous method claims, a particular use of the method. This use of the method does not add any technical restriction to claim 9, so claim 9 has the same technical features of the claims on which it depends. Consequently, for the same reason stated in the above paragraphs, claim 7 does not meet the requirements of the PCT.

#### Re Item VIII

#### **Certain observations on the international application**

3. Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined, because the expression "**the messages are compared with one another with regard to their length and transmission rate**" used in claim 1 is vague and leaves the reader in doubt as to the meaning of the technical features to which it refers (it is not clear how the comparison is made and which messages are compared).

Furthermore, it is not clear which technical effects this method step has and which is its relation with the other steps of claim 1, thereby rendering the definition of the subject-matter of said claim unclear (**Article 6 PCT**).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

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International application No.

PCT/IB2005/050202